

County of Loudoun

Office of Transportation Services – MSC # 69

MEMORANDUM

DATE: December 22, 2009

TO: Ginny Rowen, Project Manager, Department of Planning

FROM: Norah M. Ocel, E.I.T., Senior Transportation Planner *NMO*

SUBJECT: **ZMAP 2009-0006 & SPEX 2009-0026,**
Morley Corner – Temple Baptist Church and School
FIRST REFERRAL

Background

The subject zoning map amendment (ZMAP) and special exception (SPEX) applications request approval to rezone 20.93 acres from Planned Development - Commercial Center - Community Center (PD-CC(CC)) to Planned Development - Office Park (PD-OP) (19.19 acres) and Planned Development – Commercial Center - Neighborhood Center (PD-CC(NC)) (1.74 acres) for:

- a proposed 140,000 square-foot two-story church/school building with a 1,450 seat sanctuary for Sunday school, morning and evening worship services, and prayer breakfasts;
- a private school with child care to serve Kindergarten through 12th grade for approximately 500 students;
- a 20,000 square-foot church ministries, youth center and athletic field maintenance/storage facility (it will seat 150 congregants);
- a before and after school child-care facility for 150 to 200 students;
- a 2,400 square foot athletic services pavilion with bathrooms and a small concession stand;
- a 22,500 square foot retail/general business facility;
- and 10.4 acres of recreation space (49% of property) including playing fields (tennis and basketball courts) and a tot lot.

The site is located in the northwest quadrant of the Ashburn Village Boulevard (Route 772)/Waxpool Road (Route 625) intersection, approximately 2,800 feet south of Farmwell Road (Route 640) and 4,000 feet north of the Dulles Greenway (Route 267). A vicinity map is provided as *Attachment 1*.

The primary access is proposed from Ashburn Village Boulevard (Route 772) and the second access will be a right-in/right-out along Waxpool Road (Route 625).

The subject application would replace ZMAP 2006-0003, Morley Corner, approved on November 13, 2007, which proposed a maximum of 260,000 square feet of office uses and retail uses, and up to 128 multifamily units. Two additional previous applications have been approved for the site, ZMAP 1988-0027 (in LMIS as ZMAP 1988-0270) and ZMAP 1991-0001, Ashburn Center and Ashburn Center (2), respectively.

According to the applicant, the subject site would ultimately generate approximately 543 trips in the weekday morning peak hour, 238 trips in the afternoon peak hour and 1,040 trips during the peak hour on Sunday by 2012 (forecast build out year). The following table illustrates the traffic volumes generated by the approved and proposed developments.

Trip Generation Summary and Comparison (Approved vs. Proposed)

Trip generation	Trips Generated by Approved Development	Trips Generated by Proposed Development	Difference (Approved vs. Proposed)
AM Peak Hour Weekday	664	543	+121
PM Peak Hour Weekday	1,271	238	+1,033
Total AADT Weekday	11,996	3,549	+8,447
Midday Peak Hour Sunday	712	1,040	-328
Total AADT Sunday	7,073	3,351	+3,722

This table is a summary of the information provided by the applicant with the Traffic Impact Study prepared by Gorove/Slade Associates; dated July 29, 2009. It is most likely to be modified once the applicant addresses OTS' comments.

In its consideration of these applications, the Office of Transportation Services (OTS) reviewed materials received from the Department of Planning on September 8, 2009, including (1) a statement of justification prepared by the Applicant, dated July 30, 2009; (2) a modification request prepared by the Applicant, dated July 30, 2009; (3) a traffic study prepared by Gorove/Slade Associates, Inc, dated July 29, 2009; (4) a traffic memo prepared by Gorove/Slade Associates, Inc dated August 25, 2009; (5) a traffic checklist prepared by George Phillips (OTS) dated August 24, 2009; and (6) a zoning map amendment and special exception plats (plan set) prepared by Bowman Consulting Group, Ltd., dated July 30, 2009.

Existing, Planned and Programmed Transportation Facilities

According to the Revised General Plan, the site is located within the Suburban Policy Area (Ashburn Community). Major roadways serving the site are described below. OTS review of existing and planned transportation facilities is based on the 2001 Revised Countywide Transportation Plan (2001 Revised CTP) and the 2003 Bicycle & Pedestrian Mobility Master Plan (2003 Bike & Ped Plan).

Existing Ashburn Village Boulevard (Route 772 Relocated) (segment between Farmwell Road and Shellhorn Road)

From Farmwell Road (Route 640) to Waxpool Road (Route 625)

Between Farmwell Road (Route 640) and Waxpool Road (Route 625), Ashburn Village Boulevard (Route 772) becomes a two-lane undivided facility with a posted speed limit of 35 mph. The site would have access to this segment of Ashburn Village Boulevard (Route 772). There is a left turn lane onto Red Rum Drive located across from the site.

Currently, there is a four-way stop at the Ashburn Village Boulevard (Route 772) and Waxpool Road (Route 625) intersection. A review of County records indicates the above segment is within a 120-foot right-of-way.

According to the 2001 Revised CTP (Appendix 1, page 32), Route 772 Relocated (Ashburn Village Boulevard) is planned to be a six-lane, controlled access median divided, urban collector within a 120-foot right-of-way. Left-turn and right-turn lanes are required at all intersections with desirable median crossover spacing of 800 feet.

According to the 2003 Bike & Ped Plan, Ashburn Village Boulevard is proposed as a baseline connecting roadway for bicycle and pedestrian facilities.

Currently, there is an 8-foot trail on the east side of Ashburn Village Boulevard between Farmwell Road (Route 640) and Pipeline Plaza, but no facilities exist in front of the subject site.

From Waxpool Road (Route 625) to Shellhorn Road (Route 643)

Ashburn Village Boulevard (Route 772) becomes a four-lane median divided facility with a posted speed limit of 35 mph. A review of County records indicates the above segment is within a 120-foot right-of-way. Currently, there are no bicycle and pedestrian facilities along this segment of roadway.

Existing Waxpool Road (Route 625) (segment between Faulkner Parkway and Regency Drive)

From Faulkner Parkway to Regency Drive (Route 2175)

Waxpool Road (Route 625) in front of the property is a two-lane facility. The posted speed limit is 35 mph. A review of County records indicates the above segment in front of the site is within a 90- to 95-foot right-of-way.

According to the 2001 Revised CTP (Appendix 1, page 21), this segment of Waxpool Road (Route 625) is planned to be a four-lane, controlled access median divided, urban collector within a 120-foot right-of-way. Left-turn and right-turn lanes are required at major intersections. Currently, there is a Loudoun County project to expand Waxpool Road to a 4-lane divided section in front of the site east to the Ashburn Village Boulevard intersection. The expansion is estimated to be completed in the fall of 2010.

According to the 2003 Bike & Ped Plan, Waxpool Road is proposed as a baseline connecting roadway for bicycle and pedestrian facilities. Currently, no bike/ped facilities exist in front of the site.

Existing Traffic Volumes

According to the 2008 VDOT Daily Traffic Volume Estimates report, the segment of Waxpool Road (Route 625) between Ashburn Road (Route 641) and Ashburn Village Boulevard (Route 772) was estimated to carry an average daily traffic (AADT) volume of 9,000 vehicles. According to the traffic counts provided by the Applicant's traffic study (dated July 29, 2009), the segment of Ashburn Village Boulevard (Route 772) between Farmwell Road (Route 640) and Waxpool Road (Route 625) in the vicinity of the site carries an average daily traffic (AADT) volume of 11,000 vehicles.

Transportation Comments

OTS staff reviewed the following applications in order to provide comments: ZMAP 1988-0027 (in LMIS as ZMAP 1988-0270), ZMAP 1991-0001, ZMAP 2006-0003 and SPEX 2007- 0004, CPAP 1998-0101, and CPAP 2006-0051

1. Regarding the Applicant's July 29, 2009 traffic study:
 - a. Please clarify whether the applicant is proposing a 140,000 square-foot two-story church/school building with 1,450 seats as stated in the Statement of Justification or a 160,000 square-foot two-story church/school building with 1,600 seats as shown in the traffic study.
 - b. Provide detailed information on the type of retail/general business planned for the 22,500 square-foot business/retail area. Clarify the reason for using ITE code 814 (Specialty Retail Center) vs. ITE code 820 (Shopping Center) to estimate the trips generated. Please indicate if the applicant is proposing an automated carwash in this area. If so, please use ITE code 948 (Automated Car Wash) to calculate the AM and PM peak hour volumes.
 - c. Clarify the reason for using a 15% pass-by allowance reduction. The VDOT pre-scope of work meeting form (base assumptions) shows no internal allowance reduction and no pass-by allowance reduction (page 2 of 8).
 - d. Explain the reason why the applicant is not including traffic volumes generated by the child care facility (before and after school programs).

According to the information provided, the child care facility will accommodate approximately 150-200 students.

Please indicate whether the applicant is assuming the 150-200 students are included within the estimated 500 students that will be attending the "Private School (K-12)" (ITE code 536). OTS staff notes that a child care use typically has different hours of operation than a school use, which may have a greater impact on traffic during peak hours. Also indicate whether the child care facility would be open to the general public.

- e. Please clarify the use of the 20,000 square-foot church ministry building. According to the information provided, it will be accommodating 150 congregants but it is not been included in the traffic study as a trip generator.
 - f. There are 10.4 acres of active and passive recreation space, which will accommodate baseball/softball, t-ball, soccer fields and tennis courts. Please clarify if these fields will be open to the general public, whether games are going to be scheduled after school (please provide approximate times/schedule). This use has not been included in the trip generation part of the study.
 - g. The 1,458 daily total trips calculated for the 160,000 square-foot church match with staff's calculations, but the peak hour volumes do not. The study shows 90 trips in the AM peak hour and 88 in the PM peak hour, while using the ITE code staff calculates 115 and 106, respectively. Same calculations disparities exist with the private school peak hour trips shown in the study. Please clarify/specify the ITE formula/table/page used by the consultant.
2. Pending confirmation of trip generation information and impacts as noted in Comment # 1 above, OTS expects at a minimum the applicant to provide the improvements committed to in the previously approved Morley Corner (ZMAP 2006-0003) proffers. To this end, OTS notes the following:
- a. The Statement of Justification (page 7 of 16) states that *"The proffers for the Morley Corner [previous ZMAP approved] will be constructed by the developer of the residential component by agreement between the Church and the residential developer"* but the Level Of Service (LOS) in this area is failing under current circumstances, therefore Ashburn Village Boulevard needs to be open to traffic as a 4-lane median divided facility prior to issuing any zoning permit for this application.
 - b. Applicant needs to provide the proffered cash contribution for Waxpool Road Expansion. According to the latest available quote (January 15, 2009) for the Waxpool Road Expansion project, managed by VDOT and Loudoun County, the estimated fair share cash contribution for the applicant is \$386,400. The estimated completion for the project is in the Fall of 2010.

- c. Applicant is responsible for 25% of the cost to install the traffic signal at the intersection of Ashburn Village Boulevard (Route 772) and Waxpool Road (Route 625). The estimated fair share for actual engineering cost and installation cost is \$57,875, which is 25% of the total cost of \$231,500.
 - d. Applicant was proffered to provide a full warrant analysis and 50% cash contribution for the installation of the traffic signal at the intersection of Ashburn Village Boulevard (Route 772) and Red Rum Drive.
3. The owner of parcel 087177312 (parcel to the north) will need to comply with the following proffers approved with ZMAP 2006-0003: (1) a full traffic signal warrant study for the intersection of Ashburn Village Boulevard (Route 772) and the northern most entrance; and (2) a \$100,000 cash contribution including ped-activation; and a transit cash contribution.
 4. According to the 2001 Revised CTP, a minimum 60-foot right-of-way is required from the centerline to the property line along Waxpool Road (Route 625). A review of County records indicates the segment of Waxpool Road (Route 625) in front of the site is within a 90- 95-foot right-of-way. The applicant needs to dedicate the 60-foot right-of-way from the centerline to the property line. Please remove the label "if required" from the plat.
 5. If additional right-of-way is necessary for the future right turn lane along Waxpool Road (Route 625), the applicant needs to dedicate it as well.
 6. Please add the "private street" cross section to the plat including the parking area.
 7. Clarify if the main access street will be a private road. If so, please remove "ROW varies" from the plat. Private roads require easement dedications. Public roads require right-of-way dedications.
 8. It appears there has been a boundary adjustment (BLAD) application submitted to the County related to this application. Please include the application number to the cover sheet.
 9. The plat shows a portion of the subject property on the east side of Ashburn Village Boulevard. Has the applicant considered transferring ownership for this area to KMRP/Ashburn LLC (owner) to simplify future maintenance issues?
10. Regarding Bicycle and Pedestrian Facilities:
- a. According to 2003 Bike & Ped Plan, Waxpool Road is proposed as a baseline connecting roadway for bicycle and pedestrian facilities. Staff understands the trail in front of this site is not being built with the County's Waxpool Road Expansion project within the right-of-way.

Please show the 10-foot trail within a 14-foot public access easement along Waxpool Road (Route 625) as recommended by the 2003 Bike & Ped Plan (Design Toolkit). The applicant should build the trail to be consistent with the approved ZMAP 2006-0003 and ensure it is connected to the trail VDOT will be building up to the site's western property line.

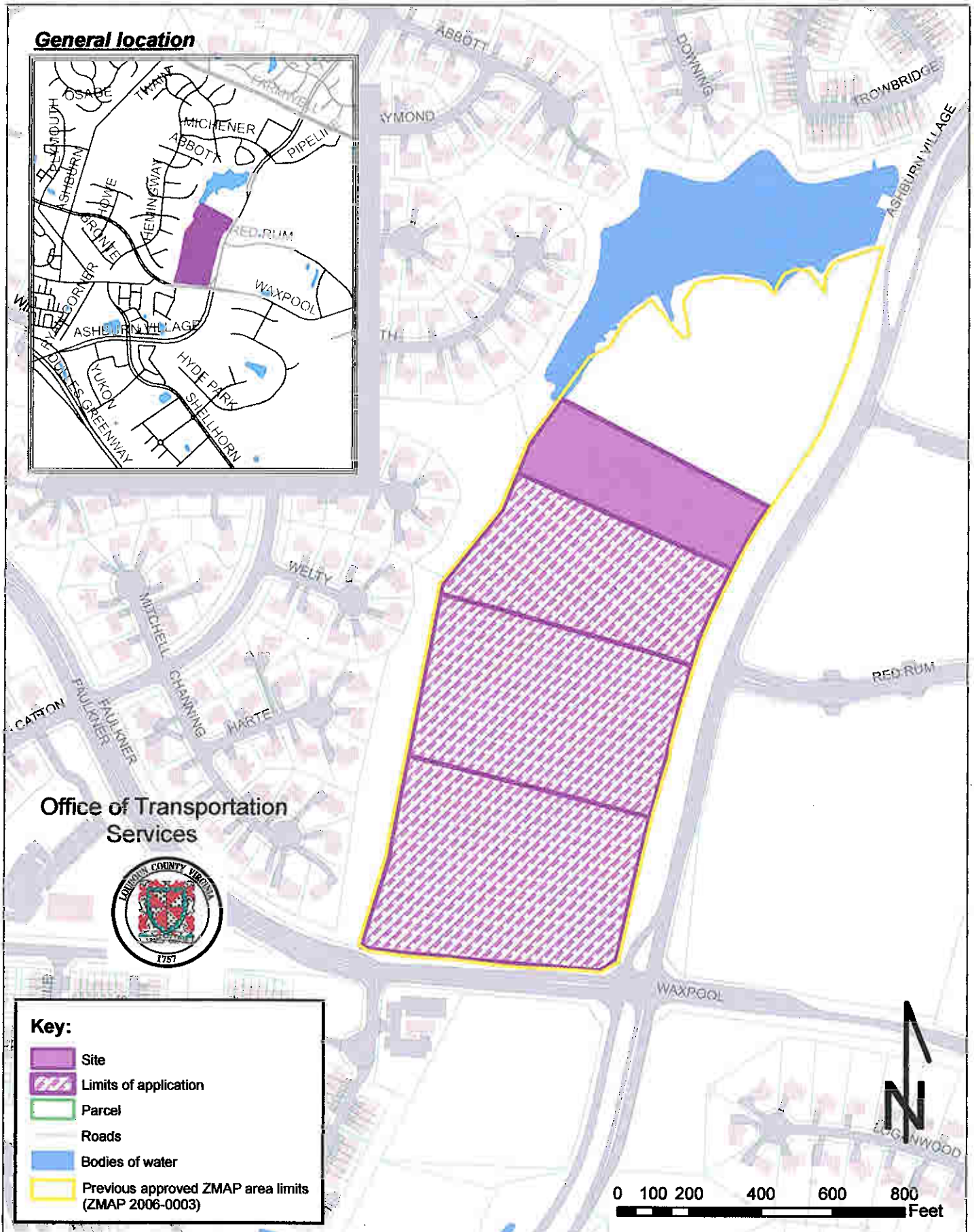
- b. Please modify plan views and typical sections to incorporate the multi-use asphalt trails along Waxpool Road (Route 625) and Ashburn Village Boulevard (Route 772). The applicant may obtain the necessary information from CPAP 1998-0101 and VDOT project # 0625-053-P10.
- c. Please show all sidewalks, curb ramps, crosswalks and trails on the special exception plat (sheet 6 of 6) and label them accordingly.
- d. Please show all curb ramps on all corners where sidewalks/trails are proposed.

CONCLUSION / RECOMMENDATION

The intersection of Ashburn Village Boulevard and Waxpool Road operates at unacceptable Level of Service (LOS) for the existing conditions during the AM and PM peak hours. While this development is anticipated to generate fewer trips than the previously approved rezoning, in order to accommodate the traffic generated by this application and provide acceptable Levels of Service (LOS) in the vicinity of the site at the project build-out, the applicant must address the transportation comments with this referral.

OTS will provide a recommendation once the applicant addresses all the comments contained in this referral. Based on the Applicant's responses, OTS may have additional comments on subsequent submissions of this application.

CC. Andrew Beacher, Assistant Director, OTS
Lou Mosurak, Senior Coordinator, OTS
Charles Acker, Transportation Operations Engineer, OTS
Rashid Siraj, Transportation Engineer, VDOT
Tom VanPoole, Senior Transportation Engineer, VDOT



ATTACHMENT 1. Vicinity Map